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EXAMINER	
MISLEH, JUSTIN P	
ART UNIT	PAPER NUMBER
2612	5

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/935,612	BLISH ET AL.	
	Examiner	Art Unit	
	Justin P Misleh	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1 - 31 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1 - 31 is/are rejected.

7)☒ Claim(s) 16 and 25 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 04 January 2002 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 4.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 31 (page 2).

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: facets 73 – 78 as shown in figure 1, 14 as shown in figure 3, and 116 as shown in figure 4.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the Examiner does not accept the changes, Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 16 states, "A digital camera as in claim 12 wherein 3D preselected

lenticular image are viewed with lenticules on said lenticular screen oriented in a direction **perpendicular** to a viewers eyes."

The Examiner believes "perpendicular" is not in the specification. Turning to page 6 (lines 9 – 23) and figure 4, it is specifically stated that viewing the lenticular screen (112) from the angle (116) wherein the lenticules are oriented horizontally corresponds to "parallel" to the viewer's eyes; however, while it is also stated that viewing the lenticular screen (112) from the angle (114) corresponds to the lenticules oriented vertically, it is not specifically stated that angle (114) also corresponds to "perpendicular" to the viewer's eyes.

For the purposes of examination, the Examiner will assume angle (114) corresponds to "perpendicular" to the viewer's eyes.

Claim Objections

4. **Claim 16** is objected to because of the following informalities: typographical error.

More specifically, Claim 16 states," A digital camera as in claim 12 wherein 3D preselected lenticular image are viewed with lenticules on said lenticular screen oriented in a direction perpendicular to a viewers eyes."

Claim 16 states therein, "said lenticular screen"; however, no lenticular screen is introduced in claimed parent Claim 12. The Examiner believes Claim 16 was intended to depend from Claim 14 since Claim 14 introduces "a lenticular screen".

For the purposes of examination, the Examiner will assume Claim 16 depends from Claim 14.

Appropriate correction is required.

5. **Claim 25** is objected to under 37 CFR 1.75 as being a substantial duplicate of **Claim 6**. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 1 – 5, 10 – 14, 16, 17, and 31** are rejected under 35 U.S.C. 102(e) as being anticipated by Lambert.

8. For **Claim 1**, Lambert discloses, as shown in figure 3 and as stated in columns 2 (lines 27 – 30 and 34 – 44), 3 (lines 7 – 26), 5 (lines 19 – 28), 6 (lines 1 – 16, 23 – 27, and 39 – 48), and 7 (lines 1 – 4 and 6 – 11), a method of creating a preselected lenticular image comprising the steps of (see below for 'preselected' explanation):

creating a first digital image (on first "image capture device 30" and associated "first storage array 100") on a plurality of first charged coupled device (CCD) sensor columns (every

column of the first "image capture device" that is a multiple of 'n' cameras; e.g. if two image capturing devices; then every other column or odd columns);

creating a second digital image (on second "image capture device 30" and associated "second storage array 100") on a plurality of second charged coupled device (CCD) sensor columns (every column of the second "image capture device" that is a multiple of 'n' + 1 cameras; e.g. if two image capturing devices; then every second column or even columns);

and storing ("non-volatile storage device") said first and second digital images in an interleaved fashion ("interleaved output image").

As stated in column 6 (lines 1 – 16): "Instead of data being read from all cells of the respective storage arrays 100 and transferred to an image processing unit for generating an interleaved image under software control, an interleaved still image or video output is achieved by interleaving the output data line connections. A first address line and corresponding output data line connect to a first column of a [first CCD sensor and] first storage array 100 and a second address line and output data line connect to a second column of a [second CCD sensor and] second array, and then the next adjacent address line and data line connect to a third column of a third [CCD sensor and] storage array, and so on as shown in FIG. 3. This arrangement of address and data lines ensures that a conventional addressing sequence applied to the address lines for accessing data in the arrays will access a set of the columns of the plurality of storage arrays in an alternating arrangement. This arrangement of address and data line connections achieves an interleaved output image suitable for viewing through a lenticular screen, without the need for complex image processing components."

Furthermore, in regards to 'preselected', as stated in column 7 (lines 6 – 11), the user has choice between whether 'two-dimensional (i.e. non-interleaved) or three-dimensional (i.e. interleaved)' results are output.

9. As for **Claim 2**, Lambert discloses, as shown in figure 3and as stated in column 6 (lines 1 – 16), a method as in Claim 1 wherein each of said first columns (of first storage array 100 and corresponding CCD) is adjacent to each of said second columns (of second storage array 100 and corresponding CCD).

10. As for **Claim 3**, Lambert discloses, as shown in figure 3 and as stated in column 6 (lines 1 – 16), a method as in Claim 1 comprising the additional steps of: creating a third digital image on a plurality of third CCD sensor columns.

Lambert states, "A first address line and corresponding output data line connect to a first column of a [first CCD sensor and] first storage array 100 and a second address line and output data line connect to a second column of a [second CCD sensor and] second array, and then the next adjacent address line and data line connect to a third column of a third [CCD sensor and] storage array, and so on as shown in FIG. 3."

11. As for **Claim 4**, Lambert discloses, as shown in figure 3 and as stated in column 6 (lines 1 – 16), a method as in Claim 3 wherein each of said first columns (of first storage array 100 and corresponding CCD) is adjacent to each of said second columns (of second storage array 100 and corresponding CCD) and wherein each of said third columns (of third storage array 100 and corresponding CCD) is adjacent to each of said second columns (of second storage array 100 and corresponding CCD).

12. As for **Claim 5**, Lambert discloses, as stated in columns 6 (lines 39 – 67) and 7 (lines 1 – 4), a method as in Claim 1 comprising the additional step of: previewing said preselected lenticular image after storing said interleaved image ("an additional shared storage array to which data from the dedicated [storage arrays 100] is transferred by interleaved connections for generation of an interleave still image or video out ... to a video display").

13. As for **Claim 10**, Lambert discloses, as stated in column 7 (lines 6 – 11), that the interleaved image is a 3D image. Thus, Lambert discloses, a method as in Claim 1 wherein said preselected lenticular image is a three dimensional (3D) image.

Furthermore, in regards to 'preselected', as stated in column 7 (lines 6 – 11), the user has choice between whether 'two-dimensional (i.e. non-interleaved) or three-dimensional (i.e. interleaved)' results are output.

14. As for **Claim 11**, Lambert discloses, as stated in column 7 (lines 1 – 11), a method as in Claim 1 wherein said preselected lenticular image is an action image ("sequenced video stream").

Furthermore, in regards to 'preselected', as stated in column 7 (lines 6 – 11), the user has choice between whether 'two-dimensional (i.e. non-interleaved) or three-dimensional (i.e. interleaved)' results are output.

15. For **Claim 12**, Lambert discloses, as shown in figure 3 and as stated in columns 2 (lines 27 – 30 and 34 – 44), 3 (lines 7 – 26), 5 (lines 19 – 28), 6 (lines 1 – 16, 23 – 27, and 39 – 48), and 7 (lines 1 – 4 and 6 – 11), a digital camera (see figure 3) for creating a preselected lenticular image improvements therein comprising (see below for 'preselected' explanation):

a sensor device (comprised of at least two "image capturing devices 30") for capturing images in a pixilated fashion (see "P rows and Q columns of pixels" in each "storage array 100"); and

wherein said sensor device (comprised of at least two "image capturing devices 30") is divided into groups of columns (1st column of first capturing device and 2nd column of second capturing device comprise wherein the first capturing device 30 comprises the first group and the second capturing device 30 comprises the second group) and a first photograph is captured on a first column of each of said groups (see below for explanation), and a second photograph is captured on a second column of each of said groups (see explanation below).

As shown in figure 3 and as stated in column 5 (lines 60 – 64), if there were "n" image capturing devices (30), every "nth" column in each image capturing device (30) would be output. In the case of figure 3, there are four image capturing devices (30) wherein the first column of the first image capturing device (30; which is the first group), the second column of the second image capturing device (30; which is the second group), the third column of the third image capturing device (30; which is the third group), and the fourth column of the fourth image capturing device (30; which is the fourth group) would comprise a first photograph and, likewise, the fifth column, the sixth column, the seventh column, and the eighth column, respectively, would comprise a second photograph. The first and second photographs are interleaved together to produce a lenticular image, wherein each image capturing device (30) corresponds to groups of columns, i.e. the first image capturing device equals a first group of columns, a second image capturing device equals a second group of columns, and so on and so forth.

Furthermore, in regards to 'preselected', as stated in column 7 (lines 6 – 11), the user has choice between whether 'two-dimensional (i.e. non-interleaved) or three-dimensional (i.e. interleaved)' results are output.

16. As for **Claim 13**, Lambert discloses, as stated in column 6 (lines 39 – 48), a digital camera as in Claim 12 wherein said first and said second photographs are stored as an interleaved image.

17. As for **Claim 14**, Lambert discloses, as stated in columns 6 (lines 13 – 16) and 7 (lines 1 – 4), a digital camera as in Claim 12 wherein a lenticular screen on said digital camera previews said preselected lenticular image.

18. As for **Claim 16** (please see objections above), in accordance with the Examiner's interpretation above, angle (114) in figure 4 of the present invention corresponds to "perpendicular" to the viewer's eyes. Moreover, Lambert discloses, as shown in figure 2 and as stated in columns 5 (lines 8 – 18) and 7 (lines 1 – 11), a digital camera as in Claim 14 [12] wherein 3D preselected lenticular images (see below for explanation) are viewed with lenticules (80) on said lenticular screen (70) oriented in a direction perpendicular to a viewer's eyes (thereby allowing the viewer to see a left and right image; see column 5 as cited above).

Furthermore, in regards to 'preselected', as stated in column 7 (lines 6 – 11), the user has choice between whether 'two-dimensional (i.e. non-interleaved) or three-dimensional (i.e. interleaved)' results are output.

19. As for **Claim 17**, Lambert discloses, as stated in column 7 (lines 5 – 11), a digital camera as in Claim 12 wherein a mode selector (not shown; however, it inherently exists since a user has the freedom to "select whether" a 2D non-interleaved image or 3D interleaved mage is captured)

changes said digital camera capture mode from single image capture to preselected lenticular image capture (see below for explanation).

Furthermore, in regards to 'preselected', as stated in column 7 (lines 6 – 11), the user has choice between whether 'two-dimensional (i.e. non-interleaved) or three-dimensional (i.e. interleaved)' results are output.

20. For **Claim 31**, Lambert discloses, as shown in figure 3 and as stated in columns 2 (lines 27 – 30 and 34 – 44), 3 (lines 7 – 26), 5 (lines 19 – 28), 6 (lines 1 – 16, 23 – 27, and 39 – 48), and 7 (lines 1 – 4 and 6 – 11), a method of creating a preselected lenticular image comprising the steps of (see below for 'preselected' explanation):

creating a first digital image (on first "image capture device 30" and associated "first storage array 100") on a plurality of first sensor columns (every column of the first "image capture device" that is a multiple of 'n' cameras; e.g. if two image capturing devices; then every other column or odd columns);

creating a second digital image (on second "image capture device 30" and associated "second storage array 100") on a plurality of second sensor columns (every column of the second "image capture device" that is a multiple of 'n' + 1 cameras; e.g. if two image capturing devices; then every second column or even columns);

and storing ("non-volatile storage device") said first and second digital images in an interleaved fashion ("interleaved output image").

As stated in column 6 (lines 1 – 16): "Instead of data being read from all cells of the respective storage arrays 100 and transferred to an image processing unit for generating an interleaved image under software control, an interleaved still image or video output is achieved

by interleaving the output data line connections. A first address line and corresponding output data line connect to a first column of a first storage array 100 and a second address line and output data line connect to a second column of a second array, and then the next adjacent address line and data line connect to a third column of the first storage array, and so on as shown in FIG. 3. This arrangement of address and data lines ensures that a conventional addressing sequence applied to the address lines for accessing data in the arrays will access a set of the columns of the plurality of storage arrays in an alternating arrangement. This arrangement of address and data line connections achieves an interleaved output image suitable for viewing through a lenticular screen, without the need for complex image processing components."

Furthermore, in regards to 'preselected', as stated in column 7 (lines 6 – 11), the user has choice between whether 'two-dimensional (i.e. non-interleaved) or three-dimensional (i.e. interleaved)' results are output.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

22. **Claims 18, 19, 20 – 24, 29, and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lambert.

23. As for **Claim 18**, Lambert discloses, as stated in columns 2 (lines 34 – 44) and 7 (lines 1 – 11), that the camera system may be operable to capture image data in three formats (modes):

including a still image (non-interleaved format), a 3D lenticular image (interleaved format), and a video lenticular image format (sequenced lenticular images), wherein a user can select between a still image format or a 3D lenticular image format. However, Lambert does not disclose a mode selector switch for selecting between all three formats (modes).

Official Notice is taken that both the concepts and advantages of providing a camera system with a mode selector switch for switching between a plurality of camera modes are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have provided a mode selector switch for switching between the three formats (modes) disclosed by Lambert, as means to provide a single camera system with increased interoperability rather than a plurality of single camera systems with limited interoperability.

24. As for **Claim 19**, Lambert discloses, as stated in columns 2 (lines 34 – 44) and 7 (lines 1 – 11), that the camera system may be operable to capture image data in three formats (modes): including a still image (non-interleaved format), a 3D lenticular image (interleaved format), and a video lenticular image format (sequenced lenticular images), wherein a user can select between a still image format or a 3D lenticular image format. However, Lambert does not disclose a burst mode switch for setting a frames per second capture speed.

Official Notice is taken that both the concepts and advantages of providing a camera system with a burst mode switch for setting a frames per second capture speed of sequenced video images are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have provided a burst mode switch for setting a frames per second capture speed of sequenced video images disclosed by

Lambert, as means to manually adjust camera picture-taking features in accordance with an image output transfer speed of the camera system.

25. For **Claim 20**, Lambert discloses, as shown in figure 3 and as stated in columns 2 (lines 27 – 30 and 34 – 44), 3 (lines 7 – 26), 5 (lines 19 – 28), 6 (lines 1 – 16, 23 – 27, and 39 – 48), and 7 (lines 1 – 4 and 6 – 11), a method of creating a preselected lenticular image comprising the steps of (see below for 'preselected' explanation):

creating a first digital image (on first "image capture device 30" and associated "first storage array 100") on a plurality of first charged coupled device (CCD) sensor columns (every column of the first "image capture device" that is a multiple of 'n' cameras; e.g. if two image capturing devices; then every other column or odd columns);

creating a second digital image (on second "image capture device 30" and associated "second storage array 100") on a plurality of second charged coupled device (CCD) sensor columns (every column of the second "image capture device" that is a multiple of 'n' + 1 cameras; e.g. if two image capturing devices; then every second column or even columns);

and storing ("non-volatile storage device") said first and second digital images in an interleaved fashion ("interleaved output image").

As stated in column 6 (lines 1 – 16): "Instead of data being read from all cells of the respective storage arrays 100 and transferred to an image processing unit for generating an interleaved image under software control, an interleaved still image or video output is achieved by interleaving the output data line connections. A first address line and corresponding output data line connect to a first column of a [first CCD sensor and] first storage array 100 and a second address line and output data line connect to a second column of a [second CCD sensor

and] second array, and then the next adjacent address line and data line connect to a third column of a third [CCD sensor and] storage array, and so on as shown in FIG. 3. This arrangement of address and data lines ensures that a conventional addressing sequence applied to the address lines for accessing data in the arrays will access a set of the columns of the plurality of storage arrays in an alternating arrangement. This arrangement of address and data line connections achieves an interleaved output image suitable for viewing through a lenticular screen, without the need for complex image processing components."

Furthermore, in regards to 'preselected', as stated in column 7 (lines 6 – 11), the user has choice between whether 'two-dimensional (i.e. non-interleaved) or three-dimensional (i.e. interleaved)' results are output.

However, Lambert does not disclose CMOS sensor columns. **Official Notice** is taken that both the concepts and the advantages of interchangeably using a CMOS image sensor with corresponding CMOS columns and CCD sensor columns with corresponding CCD sensor columns are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to use a CMOS image sensor with corresponding CMOS columns as means to provide a cheaper image sensor with on-chip image processing capabilities.

26. As for **Claim 21**, Lambert discloses, as shown in figure 3and as stated in column 6 (lines 1 – 16), a method as in Claim 1 wherein each of said first columns (of first storage array 100 and corresponding CCD) is adjacent to each of said second columns (of second storage array 100 and corresponding CCD).

27. As for **Claim 22**, Lambert discloses, as shown in figure 3 and as stated in column 6 (lines 1 – 16), a method as in Claim 1 comprising the additional steps of: creating a third digital image on a plurality of third CCD sensor columns.

Lambert states, "A first address line and corresponding output data line connect to a first column of a [first CCD sensor and] first storage array 100 and a second address line and output data line connect to a second column of a [second CCD sensor and] second array, and then the next adjacent address line and data line connect to a third column of a third [CCD sensor and] storage array, and so on as shown in FIG. 3."

28. As for **Claim 23**, Lambert discloses, as shown in figure 3 and as stated in column 6 (lines 1 – 16), a method as in Claim 3 wherein each of said first columns (of first storage array 100 and corresponding CCD) is adjacent to each of said second columns (of second storage array 100 and corresponding CCD) and wherein each of said third columns (of third storage array 100 and corresponding CCD) is adjacent to each of said second columns (of second storage array 100 and corresponding CCD).

29. As for **Claim 24**, Lambert discloses, as stated in columns 6 (lines 39 – 67) and 7 (lines 1 – 4), a method as in Claim 1 comprising the additional step of: previewing said preselected lenticular image after storing said interleaved image ("an additional shared storage array to which data from the dedicated [storage arrays 100] is transferred by interleaved connections for generation of an interleave still image or video out ... to a video display".

30. As for **Claim 29**, Lambert discloses, as stated in column 7 (lines 6 – 11), that the interleaved image is a 3D image. Thus, Lambert discloses, a method as in Claim 1 wherein said preselected lenticular image is a three dimensional (3D) image.

Furthermore, in regards to 'preselected', as stated in column 7 (lines 6 – 11), the user has choice between whether 'two-dimensional (i.e. non-interleaved) or three-dimensional (i.e. interleaved)' results are output.

31. As for **Claim 30**, Lambert discloses, as stated in column 7 (lines 1 – 11), a method as in Claim 1 wherein said preselected lenticular image is an action image ("sequenced video stream").

Furthermore, in regards to 'preselected', as stated in column 7 (lines 6 – 11), the user has choice between whether 'two-dimensional (i.e. non-interleaved) or three-dimensional (i.e. interleaved)' results are output.

32. **Claims 6 – 9, 15, and 25 – 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lambert in view of Kurahashi et al.

33. As for **Claims 6 and 25** (please see objection above), while Lambert discloses that the stored or transmitted image or video data is displayed via lenticular-screen display device, Lambert does not disclose wherein the lenticular screen is mounted on a digital camera. On the other hand, Kurahashi et al. also disclose a method for creating and displaying a lenticular image. More specifically, Kurahashi et al. disclose, as shown in figure 1 and as stated in column 5 (lines 20 – 37), wherein the lenticular screen (4 and 7) is mounted on a digital camera (1). As stated in columns 2 (lines 27 – 41), at the time the invention was made, one with ordinary skill in the art would have been motivated to include previewing an image on a lenticular screen mounted on a digital camera, as taught by Kurahashi et al., in the lenticular method, disclosed by Lambert, as means to judge whether the recently captured lenticular image is satisfactory at the time of image

capture rather than at a later editing operation, thereby reducing significant burden upon the user. Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included previewing an image on a lenticular screen mounted on a digital camera, as taught by Kurahashi et al., in the lenticular method, disclosed by Lambert.

34. As for **Claims 7 and 26**, while Lambert discloses that the stored or transmitted image or video data is displayed via lenticular-screen display device, Lambert does not disclose wherein the lenticular screen is an LCD mounted on a digital camera. On the other hand, Kurahashi et al. also disclose a method for creating and displaying a lenticular image. More specifically, Kurahashi et al. disclose, as shown in figure 1 and as stated in column 5 (lines 20 – 37), wherein the lenticular screen (4 and 7) is an LCD mounted on a digital camera (1). As stated in column 2 (lines 27 – 41), at the time the invention was made, one with ordinary skill in the art would have been motivated to include previewing an image on a lenticular LCD mounted on a digital camera, as taught by Kurahashi et al., in the lenticular method, disclosed by Lambert, as means to judge whether the recently captured lenticular image is satisfactory at the time of image capture rather than at a later editing operation, thereby reducing significant burden upon the user. Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included previewing an image on a lenticular LCD mounted on a digital camera, as taught by Kurahashi et al., in the lenticular method, disclosed by Lambert.

35. As for **Claims 8 and 27**, angle (114) in figure 4 of the present invention corresponds to "vertically" with respect to the viewer's eyes. Moreover, Lambert discloses, as shown in figure 2 and as stated in columns 5 (lines 8 – 18) and 7 (lines 1 – 11), orienting lenticules (80) on the

lenticular screen (70) vertically with respect to a viewer for previewing 3D preselected lenticular images (thereby allowing the viewer to see a left and right image; see column 5 as cited above).

Furthermore, in regards to 'preselected', as stated in column 7 (lines 6 – 11), the user has choice between whether 'two-dimensional (i.e. non-interleaved) or three-dimensional (i.e. interleaved)' results are output.

36. As for **Claims 9, 15, and 28**, as stated above, angle (114) in figure 4 of the present invention corresponds to "vertically" with respect to the viewer's eyes and angle (116) also in figure 4 of the present invention corresponds to "horizontally/parallel" with respect to the viewer's eyes. While, Lambert discloses, as shown in figure 2 and as stated in columns 5 (lines 8 – 18) and 7 (lines 1 – 11), orienting lenticules (80) on the lenticular screen (70) vertically with respect to a viewer for previewing 3D preselected lenticular still and video images (thereby allowing the viewer to see a left and right image; see column 5 as cited above); Lambert does not disclose orienting lenticules on the lenticular screen horizontally/parallel with respect to a viewer's eyes for previewing the action (video) image. On the other hand, Kurahashi et al. also disclose a method for creating and displaying a lenticular image. More specifically, Kurahashi et al. disclose, as shown in figure 2A and as stated in columns 5 (lines 40 – 67) and 6 (lines 1 – 5), orienting lenticules (lenticular lens B 904) on the lenticular LCD (4) horizontally/parallel with respect to a viewer's eyes for previewing the action (video) image. As stated in columns 5 (lines 57 – 61) and 7 (lines 20 – 25), at the time the invention was made, one with ordinary skill in the art would have been motivated to include orienting lenticules on the lenticular screen horizontally/parallel with respect to a viewer's eyes, as taught by Kurahashi et al., in the system, disclosed by Lambert, as a means to provide a lenticular LCD that expands the vertical viewing

area, by separating light with directionality, such that the display is "easily observable" when the camera is in an "optimum position" for photographing. Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included orienting lenticules on the lenticular screen horizontally/parallel with respect to a viewer's eyes, as taught by Kurahashi et al., in the system, disclosed by Lambert.

Conclusion

37. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The following is brief description of the cited prior art not used in the rejections above, as labeled on attached form PTO-892.

- **Prior Art C** discloses, in the very least, an imaging system including a lenticular lens layer and light sensor array, wherein the lenticular lens layer includes a plurality of lenticular elements and wherein selected light sensors of the light sensor array detect light at a predetermined range of wavelengths and selected light sensors of the light sensor array detect light at least another predetermined range of wavelengths. Furthermore, each of the lenticular elements is located in front of a selected group of the light sensors, thereby directing light from different directions to different light sensors within the selected group of the light sensors.

- **Prior Art D** discloses, in the very least, a stereoscopic image generating apparatus for converting a plurality of two-dimensional images having different parallaxes into line-shaped images and for mixing in a desired manner a first image formed by the line-shaped images in view of projection angles of lenticular lenses and the second image formed by a usual planar

image to thereby form a composite image formed by a stereoscopic image and a planar image for outputting the composite image to a recording medium.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 703.305.8090. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 5:30 PM and on alternating Fridays from 7:30 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wendy R Garber can be reached on 703.305.4929. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM
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